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ABSTRACT

A patient education evaluation project and how it applies or might be useful to other hospital settings is discussed in this paper. The following topics are included: United Hospitals (St. Paul, Minnesota); situation and approach to patient education; description of the patient education evaluation project, including design, criteria, and elements of the system (program objectives, measures, performance expectancies, weights [ranking of objectives], client descriptors, and the management report); and the system's use in other hospital settings. (TA)

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HOW HOSPITALS EVALUATE PATIENT EDUCATION PROGRAMS[1]

Marian Ulrich[2]

This afternoon, I would like to discuss with you our patient education evaluation project and how it applies or might be useful to other hospital settings. To set a framework for this presentation, let me first briefly describe our hospital situation and our approach to patient education.

Overview

United Hospitals, which is the resulting corporation of a merger of Miller and St. Luke's Hospitals, has 720 beds and is located in downtown St. Paul, Minnesota. The hospital is encouraging health protection and promotion through a variety of approaches that include patient education, health promotion and safety services for its employees, and a wide variety of health education programs operated outside the hospital for community residents. Health education at United Hospitals is the responsibility of a department organized in 1970 to guide the development and growth of the hospital's educational services for patients, employees, paramedical students on affiliation at United, and community members, as well as to serve in a liaison capacity with the medical education department. Its functions also include direction of the staff and patient libraries, provision of medical photography services, and supervision of all audiovisual resources.

Since 1969, United Hospitals has become increasingly more involved in and committed to providing health education services for its patients. Starting with health education services for persons with diabetes, our hospital staff now provides formalized health education services as a routine component of care to inpatients and outpatients with diabetes, several forms of heart disease, and chronic obstructive pulmonary disease. In addition, a pilot for a hospital-wide program in self-administration of medications for all appropriate patients will begin in October 1976.

Description of Our Approach to Patient Education

We believe that patient education can be approached as a specific treatment modality. Our concept of patient education is that it consists of planned health educational experiences for a patient that are designed by his physician, professional health workers, the patient's family members, and the

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patient himself to meet the patient's specific learning needs, interests, and capabilities and are offered as an integral part of the patient's total health care.

Some of the more important characteristics of our patient education programs are that:

1. They are multidisciplinary in nature.
2. They use team planning and teaching.
3. They use as teachers the professional health workers (such as nurses, pharmacists, dietitians, etc.) who are already caring for the patient's other health needs.
4. Standard methods are used for:
    a. Initiating the patient and family education. (Similar to a physician's ordering any other service.)
    b. Determining the kind of education a patient and his family need.
    c. Setting reasonable behavioral objectives to be attained through education.
    d. Delivering the planned educational activities.
    e. Evaluating the effectiveness of the education.
    f. Making available to the patient and his family further guidance in selfcare after discharge from the hospital, if this is needed.

Patient Education Evaluation Project

Evaluation of our patient education efforts has been an ongoing challenge. As a service-oriented rather than a research-oriented facility, the emphasis of our evaluation efforts has been directed toward:

1. The development of an evaluation system (ongoing mechanism) which can be used to monitor our progress, pinpoint where changes are needed, and suggest ways to relate to the community how we are using their money.

2. The development of a usable management tool which can tell us the results of services provided (impact and quantification.)

A year ago, United was one of six-member agencies of the Human Resources Planning Council of the St. Paul area to be chosen to participate in a Program Effectiveness Project headed by Walker and Associates[1], a local consultant firm. The intent of this project is to develop an evaluation system that will measure both the effectiveness and the efficiency of the program to be evaluated.

[1]Bob Walker and Associates, 23 East Grant St., Minneapolis, Minnesota 55403 (612-332-6377). The inclusion of the name of this company and its methodology does not constitute endorsement by the U.S. Department of Health, Education, and Welfare or any of its agencies or by the American Hospital Association.

Utilizing the elements of a formative program evaluation system as defined by Walker, we have been able to clearly identify what we are striving to accomplish, the services we are providing, who the program serves, and shortly the results of our efforts on a continuing basis. We are using this information to help market our programs, gain further community (and hospital) support, and continually improve program results.

The basic assumptions upon which the system is designed are that:

1. There is a cause and effect relationship between services provided and results obtained.

2. Knowledge of results improves program performance. In other words, if feedback is given to staff on results of their efforts, this knowledge helps the providers do a better job. Holding staff accountable for results tends to improve productivity.

From Walker's perspective, program evaluation is a systematic procedure for regularly determining the results achieved by persons following the provision of services and determining the efficiency with which those results are obtained.

The criteria for a program evaluation system include the following:

1. Program evaluation measures what happens to all clients.
2. Measures are applied outside of the facility.
3. Reports on results are produced at regular intervals (monthly, quarterly).
4. Reports tell you whether or not your performance was acceptable.

The 8 basic elements of our program evaluation system are

1. <u>A statement of purpose or mission</u>
   Definition: The purpose or mission statement of an organization describes, in general ways, what it strives to accomplish, the services provided and who it serves. It should be sufficiently broad to cover all the organization's programs but specific enough to distinguish it from other organizations in the community.
   Our mission statement for patient education: to provide educational services under medical supervision to the chronically disabled which will reduce premature patient mortality and enable such patients to maximize capacities for independent living.

2. <u>Program Goals</u>

   Definition: Program goal statements are more specific than the organizational purpose and describe for each of the programs the kinds of services provided, who is served,and the kinds of results to be achieved. An organization with three programs would have program goal statements for each of the three programs.

Criteria for Program Goals:

a. Must state more specifically who is served by program, what services are provided, and what the program is designed to do.

b. Program goal statement must be specific enough to allow one to determine the program objectives.

c. Must be achievable. Goal should be able to be accomplished by the services provided.

The program goal statement for our cardiac patient education program: To provide an individualized program of education, skill development, and counseling services to cardiac patients and their families which will minimize premature mortality, reduce inappropriate hospitalizations, and facilitate their ability to live independently.

3. Program Objectives

Definition: Objectives are the very specific statements of what is to be achieved by a program. If the specific objectives are achieved, then the program will have accomplished its goal. Objectives are the statements from which measures are derived and need to be stated in terms of the results to be achieved. All programs should have objectives covering both effectiveness and efficiency.

Criteria for Objectives:

a. Objectives must be measurable.
b. The sum of all objectives equals accomplishment of the goal.
c. All programs should have objectives covering effectiveness and efficiency.

Objectives for Our Cardiac Patient Education Program:

a. Maximize the number of patients who do not require an in-home service
b. Minimize the number of patients requiring institutional care.
c. Maximize personal independence.
d. Reduce social isolation.
e. Maximize the number of patients who follow critical recommendations in the home treatment plan.
f. Obtain employment or return to work.
g. Reduce need for inappropriate rehospitalization.
h. Maximize use of the educational program.

4. Measures

Definition: Measures are the statements which indicate how the achievement of objectives will be determined. Measures should be reliable and applied following the provision of services. The measures must clearly indicate to whom they are to be applied and when they will be done.

Criteria for Measures:

a. Must measure whether the objectives are achievable (valid - reliable).
b. Must supply accurate information.
c. Should measure a final result occurring outside of the facility.

Measures for Our Cardiac Patient Education Program:

a. Percentage of patients who do not require an in-home service in the past 2 weeks prior to follow-up.
b. Percentage of patients not in an institution.
c. Percentage of patients who independently perform those critical living skills learned or encouraged by the educational program (See special instrument).
d. Percentage of patients who left place of residence for recreational or social purposes in the past month prior to follow-up.
e. Percentage of patients who follow critical recommendations in the home treatment plan (See special instrument).
f. Percentage of patients who have returned to work or obtained new employment.
g. Percentage of patients who are not rehospitalized for the condition for which they received educational services.
h. Percentage of all primary and secondary diagnosed patients who are ordered to receive an educational program.

5. Performance Expectancies

Definition: Expectancies are statements of the degree to which each objective is achieved. They are the criteria against which actual performance of each objective can be compared.

Criterion For Expectancies:

a. Expectancies must be set at a level which encourages improvement.

Factors to Consider in Developing Expectancies:

a. Past performance.

b. Whom you serve.
c. Environment (control).
d. Quality of your service.
e. Quantity of your service.
f. Note: Expectancies should not be set without consultation of those who will do the work; they should be negotiated with staff.

Expectancies are set at three levels (they can be changed and must be, to remain reasonable):

a. Goal level - if achieved, this would be satisfactory performance.
b. Minimal - below this, if program cannot be improved, it should be eliminated.
c. Optimal - this is the upper limit, if everything goes right, this is what you can achieve, (not necessarily the maximum possible).

Expectancies should be reasonable for the program's clients.

a. Expectancies help to measure relative, not absolute, performances.
b. Setting expectancies makes the system explicit so everyone is playing under the same rules.

Sample expectancies: Heart Program

	Minimal	Goal	Optimal
Percentage of patients who did not require an in-home service in the past 2 weeks prior to follow-up.	70%	80%	90%

6. Weights

Definition: The relative importance of objectives to be achieved by each program need to be indicated. If program has more than one objective and measure and they are not all of equal importance, they should be either rank-ordered or assigned relative weights.

How weights are set:

a. Weights are set in terms of percentages.
b. All of the objectives for each program goal are assigned weights.
c. Total = 100%.

Weights enable data to be combined in a single score of overall program performance.

With patient education, look at the balance between acquiring behavior and utilizing behavior. Weights can help change staff and patient behavior. The highest priority is the objective with the heaviest weight.

7. Client Descriptors

The evaluation system should describe the persons served in such a way that it facilitates interpretation of the results obtained. The descriptors should indicate the severity of the problems to be resolved by the services and indicate the major barriers to their achievement.

Criteria for Client Descriptors:

Client descriptors should be defined in such a way that you can judge the adequacy of your results.

Examples From Our Cardiac Program:

a. Percent of patients over 65 years of age.
b. Percent of patients who have diminished mental capacity.

8. Management Report

In order to accomplish the purposes of a program evaluation system, the performance data obtained must be regularly distributed to persons both within and outside the organization.

These reports should indicate the actual performance achieved on all the objectives, the expected levels of achievement, and a summary of the major descriptors of the persons on whom the performance information is based.

Index scores are numerical figures which tell you the degree to which each objective is best achieved.

Indexing system: 50 = minimal performance
100 = goal performance
150 = optimal performance

Combining this program evaluation system with some of our current evaluation methods (which include chart audit case studies, pre- and- post education assessments, and verbal feedback from patients, family members, physicians and staff) and incorporating some excellent ideas and methods suggested by Lawrence W. Green, Dr.PH, of Johns Hopkins University to handle correctly three

major variables which affect the attainment of patient education goals - namely, (1) the medical management plan, (2) the patient's physiological and psychological state,and (3) the patient's behavior - should give us a clear, useful picture of the effects and efficiency of our patient education efforts.

Use in Other Hospital Settings

Now let us examine for a moment how our approach to evaluation applies or might be useful to other hospital settings. As I discussed earlier in this paper, as a service-oriented rather than a research-oriented facility, the emphasis of our evaluation efforts has been directed toward:

1. The development of an evaluation system (ongoing mechanism) which can be used to monitor our program, pinpoint where changes are needed, and suggest ways to relate to the community how we are using their money.

2. The development of a usable management tool which can tell us the results of services provided (impact data), and which quantifies it.

Utilizing the elements of a formative program evaluation system, a hospital should be able to identify clearly what they are striving to accomplish, the services they are providing, whom the program serves, and the results of their efforts on a continuing basis. This information can be used to help market their programs, gain community and hospital support, and continually improve program results.

I strongly believe that most service organizations would greatly benefit from the utilization of a program evaluation system such as the one suggested by Walker.

As a part of the program effectiveness project, the six agencies involved (Health Resources Administration, St. Paul Rehabilitation Center, Merrick Community Center, Migrants in Action, St. Paul Association for Retarded Children) completed a questionnaire for Walker. One of the questions asked was:

> What do you perceive as being the primary benefit to your agency of program evaluation?

I list their comments to summarize the versality, usefulness, and necessity of evaluation of patient education programs.

Comments:

a. "It provides a useful picture of where our program is and where it is going. It is being used as a planning tool. The data provided could possibly be used to increase needed services.

b. It has helped us to clarify our goals and list them by priority - valuable information in making future budget requests.

c. Can be used as a cost/savings device. We can help people get the services they really need; yet not use services which are unnecessary.

d. This system gives us clear and concise data that can be interpreted and used to continually upgrade the results of our services."